

REFORM ROLLERS

1 This application is a 35 USC 371 of PCT/EP03/06239 filed 6/13/2003.

This invention relates to reform rollers and, in particular to rollers for use in internal or external base reforming of can bodies.

Can bodies for containing beverage conventionally  
5 comprise a cylindrical side wall and integral base. The base is substantially thicker than the wall ironed side wall and has an upwardly domed central portion and an inner wall extending downwardly from the dome to a stand  
10 bead which, in turn, extends upwardly and outwardly to the side wall of the can body. Such beverage can bodies are conventionally made from aluminium alloy or tinplate.

The domed shape of the beverage can body is so designed in order to withstand internal pressure and to resist deformation such as outward bulging of the base.  
15 It has been found that by reforming the inner wall of the base either indirectly, by applying an external, or directly using an internal roller, improved dome reversal pressures are obtained. Further advantages of the reformed base profile include greater resistance to  
20 deformation, particularly when dropped, and control of overall can height during pasteurisation, handling or transportation.

Although known base reforming generally improves a can's abuse and buckle resistance, there is a great  
25 degree of variation in can performance between cans. This variation can lead to unacceptable mean dome depth, dome growth and/or dome reversal pressure. In particular, it has been found that there is instability in the process run with ingoing cans typically showing initially a  
30 relatively shallow reform bead in the reform profile and